US Army Corps of Engineers

Norfolk District

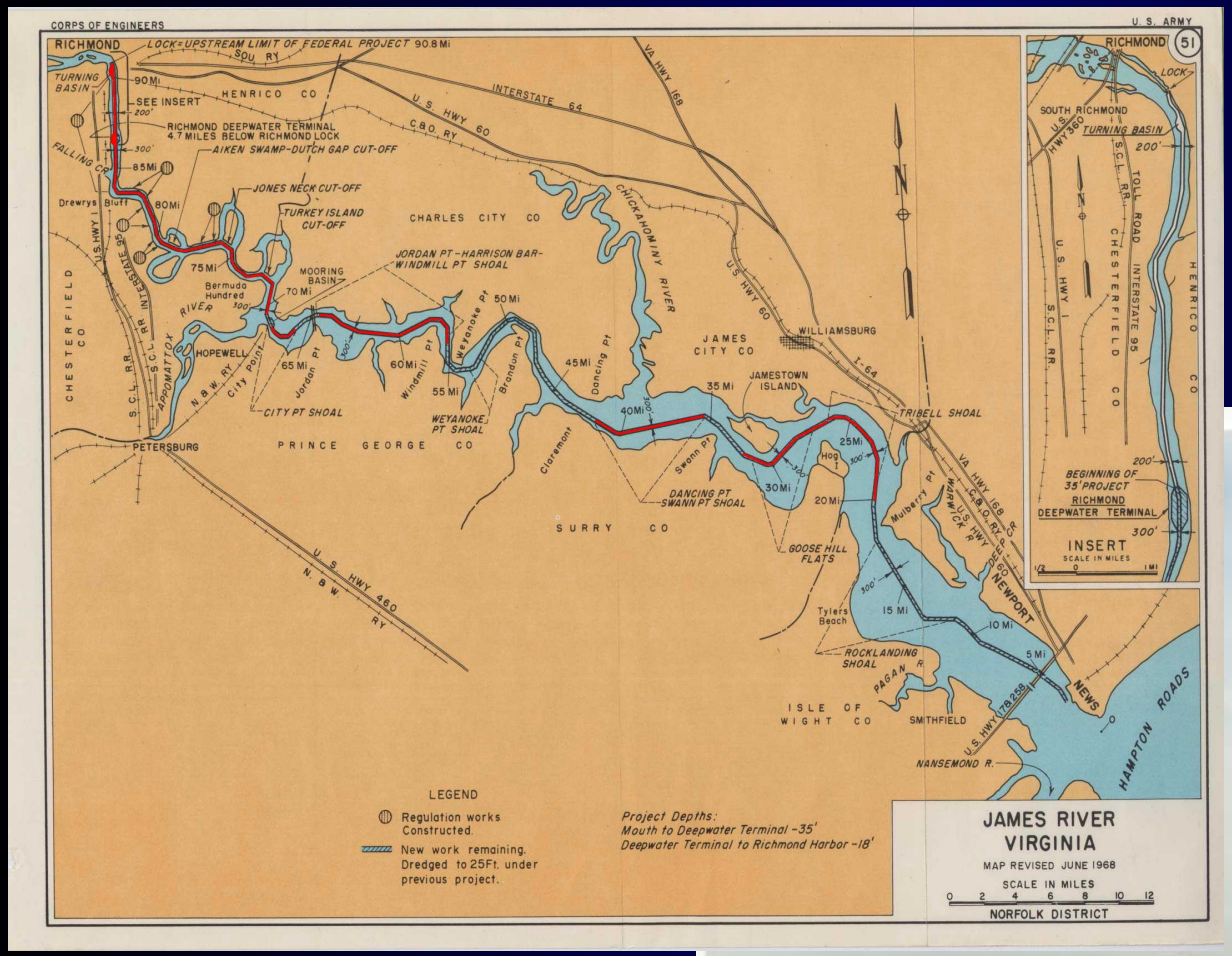
James River Federal Navigation Project
Environmental Coordination
Review of Permit Issues

Betty Grey Waring

Chief, Technical Support Section

Operations Branch

James River


CORPS OF ENGINEERS
U. S. ARMY
RICHMOND
LOCK-UPSTREAM LIMIT OF FEDERAL PROJECT 90.8 Mi
SOU RY
TURNING BASIN
90 Mi
HENRICO CO
SEE INSERT
INTERSTATE 64
U S HWY 60
C&O RY
RICHMOND DEEPWATER TERMINAL 4.7 MILES BELOW RICHMOND LOCK
AIKEN SWAMP-DUTCH GAP CUT-OFF
FALLING CR
85 Mi
JONES NECK CUT-OFF
Drewrys Bluff
80 Mi
TURKEY ISLAND CUT-OFF
CHARLES CITY CO
CHICKAHOMINY RIVER
S.C.L. RR
MOORING BASIN
75 Mi
JORDAN PT-HARRISON BAR-WINDMILL PT SHOAL
Bermuda Hundred
70 Mi
RIVER
50 Mi
JAMES CITY CO
WILLIAMSBURG
HOPEWELL
65 Mi
60 Mi
55 Mi
45 Mi
35 Mi
JAMESTOWN ISLAND
I-64
CITY PT SHOAL
WEYANOKE PT SHOAL
TRIBELL SHOAL
40 Mi
25 Mi
PETERSBURG
PRINCE GEORGE CO
DANCING PT SWANN PT SHOAL
30 Mi
20 Mi
SURRY CO
GOOSE HILL FLATS
VA HWY 168
C&O RY
NEWPORT
15 Mi
10 Mi
5 Mi
ROCKLANDING SHOAL
PAGAN R.
NEWS
ISLE OF WIGHT CO
SMITHFIELD
U.S. HWY 258
NANSEMOND R.
HAMPTON ROADS
U. S. HWY 460
N & W RY
RICHMOND 51
LOCK
SOUTH RICHMOND
TURNING BASIN
200'
TOLL ROAD
INTERSTATE 95
BEGINNING OF 35' PROJECT
RICHMOND DEEPWATER TERMINAL
300'
INSERT
SCALE IN MILES
LEGEND
Regulation works Constructed.
New work remaining. Dredged to 25Ft. under previous project.
Project Depths:
Mouth to Deepwater Terminal -35'
Deepwater Terminal to Richmond Harbor -18'
JAMES RIVER
VIRGINIA
MAP REVISED JUNE 1968
SCALE IN MILES
0 2 4 6 8 10 12
NORFOLK DISTRICT

The Corps of Engineers navigation mission carries out one of the primary needs and uses of the James River.

It is our job to keep the channel open and navigable.

Navigation

In order to maintain the channel, the Corps must obtain

» DEQ 401 Water Quality Certifi

» VMRC permit

For permitting purposes, the 90 mile James River navigation channel is separated into three parts:

- Upper – Mile 90 to mile 70 (Richmond Harbor to Hopewell)
- Middle – Mile 69 to mile 27 (Hopewell to Hog Island)
- Lower – Mile 27 to mile 5 (Hog Island to the river mouth)

Richmond City
Richmond Harbor
Richmond Harbor to Richmond Deepwater Terminal
Henrico
Richmond DWT
Richmond Deepwater Terminal
3E-B/11E
2E-A
Jones Neck
Richmond Deepwater Terminal to Hopewell
8E-H/8E-J
8E-K
Curles Neck
Turkey Island
7E-E
Chesterfield
Eppes Island & Creek
James River Federal Navigation Project
Upper Reach
Legend
County Boundary
Placement Areas
Reaches of the James River
Lower Reach
Middle Reach
Upper Reach
N
W
E
S
0 0.5 1 Miles
Norfolk District
US Army Corps of Engineers

James River Federal Navigation Project
Middle Reach
Charles City
James City
Williamsburg
Prince George
Surry
Turkey Island
Eppes Island & Creek
Jordan Point
Harrison Bar
Windmill Point Shoal
Westover Plantation
Jordan Pt.
City Point (Overboard)
City Point Shoal
Jordan Pt. to Windmill Pt. (Overboard)
Windmill Pt.
Weyanoke Pt.
Kennon Marsh
Chickahominy River
Dancing Pt.
Dancing Point - Swann Point Shoal
Dancing Point - Swann Point (Overboard)
Swann Pt.
James Town Island
Goose Hill (overboard)
Goose Hill Shoal
Legend
County Boundary
Placement Areas
Reaches of the James River
Lower Reach
Middle Reach
Upper Reach
N
W
E
S
0 1 2 Miles
Norfolk District
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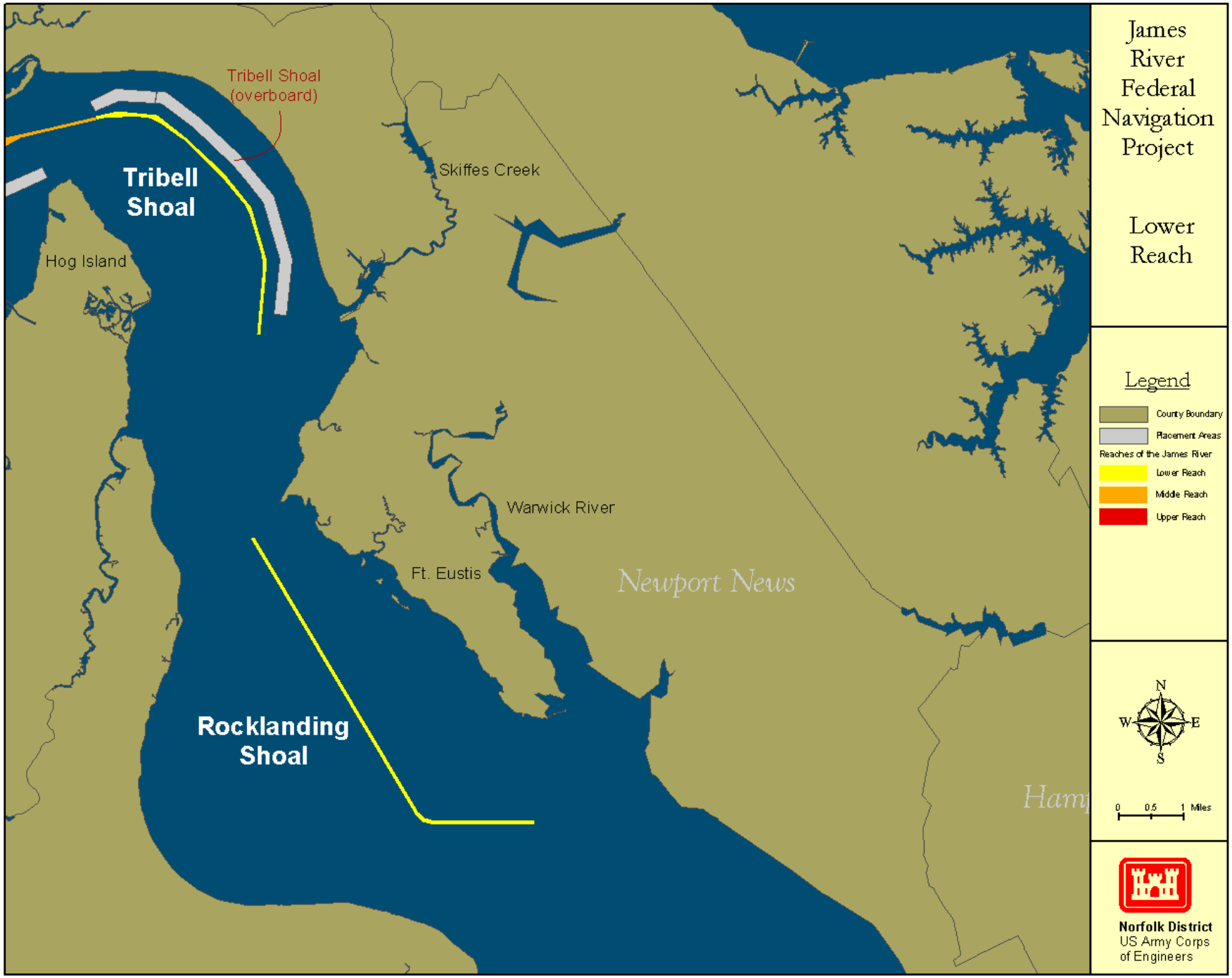
Tribell Shoal
(overboard)
Tribell Shoal
Hog Island
Skiffes Creek
Warwick River
Ft. Eustis
Newport News
Rocklanding Shoal
James River Federal Navigation Project
Lower Reach
Legend
County Boundary
Placement Areas
Reaches of the James River
Lower Reach
Middle Reach
Upper Reach
N
W
E
S
0 0.5 1 Miles
Norfolk District
US Army Corps of Engineers

Each of these channel segments has distinct engineering and environmental characteristics that made separation into three permits logical.

– For example:

- Upper James
  - –Mostly granular material
  - –Upland placement sites
  - –Low salinity
- Middle James
  - –Finer material
  - –Overboard placement sites
  - –More industrial
- Lower James
  - –Fine material
  - –Higher salinity
  - –Oyster grounds
  - –Wider river

The state permits must be renewed every 5 years (VMRC) or 10 years (DEQ).

In 2004, 3 permits will expire:

- Upper James – 401 Certificate
- Middle James – 401 Certificate & VMRC permit

Conditions placed on previous permits required to be completed before renewal.

- Middle James River Dredged Material Placement Alternatives Study 2002
- Sediment Sampling/Testing City Point Channel 1999
- Before Dredging Benthic Surveys 1999-2000
- Richmond Harbor Core Sampling and Analysis 1993

Conditions continued:

- Richmond Deepwater Terminal Sediment Sampling 2002
- Sampling and Analysis Plan for Turkey Island Cut-off and Richmond Deepwater Terminal 2003
- Navigation Project Evaluations & Sediment Fate
  - City Point Channel
  - Jordon Point-Harrison Bar-Windmill Point
  - Goose Hill Channel
  - Dancing Point-Swann Point

In addition, the Corps undertook the following engineering and other studies in the James River to learn more about the river processes:

- Surface Tidal Current and Sediment Distribution-Turkey Island Cut-off 1997
- Long-term Dredged Material Management Plan for the Upper James River 1995
- Preliminary Analysis for Alternative Upland Dredged Material Placement Sites at Turkey Island Cut-off 1998
- Anadromous Fish Study 2002
- Underwater Archeological Investigations 1995

We now have a good understanding of the river and how it is affected by dredging and placement of dredged material.

The results of some of these studies will be discussed in more detail this afternoon.

Status of Permit Renewals:

- Middle James
  - VMRC – On Commission Agenda January/February
  - DEQ – Awaiting draft permit
- Upper James
  - DEQ – Awaiting draft permit after completion of current testing at Turkey Island and Richmond Deepwater Terminal

Possible condition to test before every dredging event

Where do we stand?

- The Corps has spent significant effort and funds to study the James River to satisfy permit conditions and for our own engineering navigation needs.

- Renewing permits is becoming more and more difficult
  - greater time required
  - more questions to answer
  - more studies and sediment testing

As our partners, all of you need to know and understand the costs associated with meeting permit requirements, particularly in these times of reduced funding

- sediment testing requires significant time and effort and must follow strict protocols
- High cost for preparation, collection, and chemical analysis

If we do not obtain permits, we cannot dredge

- Affects current navigation in river
- Uncertainty affects future plans to send additional ships up the James
- Economic consequences for Commonwealth of Virginia

Key is to put the true engineering and environmental effects of dredging in perspective with all of the other natural processes and man-made activities in th

Conclusions:

- Norfolk District, Corps of Engineers continues to look for ways to maximize navigation, while meeting state regulatory requirements.
- Good working relationships with agencies has assured unrestricted navigation.
- Requirements are becoming more difficult while funding is getting tighter.
- The Corps continues to take pride in balancing the navigation needs of the James River with the true environmental impacts of dredging.

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Thank You